Merriam shows that there are still possibilities in both lines, and that her book is not without *raison d'être*. It is admirably adapted as 'A Bird Book for Beginners,' and we trust it will achieve the success it so well merits. — J. A. A.

Hair and Feathers.[1]—Professor Kingsley here reviews recent investigations regarding the development and structure of hair and feathers, notably those published in Germany, of which he presents a brief summary. He makes special acknowledgment to the recent able review of the subject by Professor Keibel, in Merkel and Bonnet's 'Ergebnesse der Anatomie und Entwickelungsgeschichte,' 1896. As is now well known, hair and feathers are not only unlike in structure and appearance, but in method of origin and growth. "According to Davies all contour feathers are preceded by down-feathers," or, in other words, "the germ of the definitive feather is a direct derivative of the germ of the down-feather." The process of formation is described at some length, concluding as follows: "With the withdrawal of the pulp from the feather there is no longer any nerve or blood supply to the parts of the feather. The cells of which it is composed are dead and dry so that it seems impossible that any change can take place in it. The whole question of change in color of the fully formed feather was recently reopened by Mr. J. A. Allen who maintained that, once formed, the feathers do not change in their markings. The whole history of development seems to afford him full support. Yet this year [1897] the attempt has been made to show that feathers do change in their markings. In this, as the matter now stands, the burden of proof is upon those who support the possibility of change."

Regarding the origin of hair and feathers, reference is made to the old view that they were of homologous origin, and that both were derived from the reptilian scale. "It may be said, however," says Kingsley, "that Davies, to whom we owe the most accurate account of the development of the feather declines to regard pin-feathers [filoplumes?] as the simplest type of the avian tegumentary covering but rather as a retrograde condition; and farther, that he regards the scales upon the tarsal and digital regions of birds as secondary formations, agreeing in this with Jeffries." Again, "Maurer maintains that hair and feathers are not homologous structures. The feather, according to his view has been derived from the Reptilian scale while hair has arisen from the dermal sense organs of the Ichthyopsida as a result of a change in habits and conditions of life." A brief statement is given of Maurer's investigations and conclusions, and the reader is further advised to refer to Keibel's summary, "with its bibliography of over one hundred titles."—J. A. A.

Baur on the Birds of the Galapagos Archipelago.— Dr. Baur reiterates

[1] Hair and Feathers. By J. S. Kingsley. Amer. Naturalist, Vol. XXXI, Sept. 1897, pp. 767-777, figs. 1-14.